



Basin F Wastepile Frequently Asked Questions

History

Why was the Basin F Wastepile created, and when was it used?

Following the attacks on Pearl Harbor, the U.S. Army (Army) built the Arsenal to produce chemical and incendiary weapons. In 1952, Shell Oil Co. (Shell) leased the facilities from the Army to manufacture herbicides and pesticides. The Army constructed Basin F in 1956 to hold liquid waste from the Army and Shell's manufacturing. Those operations stopped in the early 1980s, and Basin F was no longer needed as an evaporative disposal site. The basin held a maximum of 243 million gallons, and it covered roughly 93 acres.

Why is Basin F contaminated?

Using commonly accepted disposal and storage practices of the time, the Army and Shell discharged waste from their operations into the basin. The Army built Basin F with an asphalt liner to prevent waste from leaking into the ground, but the liner was ineffective, and some leakage occurred over time. Significant initial cleanup work was done in the 1980s, and the final cleanup will begin in April 2006.

Why wasn't the cleanup work finished in the 1980s?

In the late 1970s, the Arsenal began developing long-term cleanup plans for the site. By the mid 1980s, they had identified more immediate steps—or interim response actions—to address contamination concerns. The Basin F interim response action began in 1988 with the excavation of sludge and contaminated soil from all 93 acres of Basin F. The goal was to drain, store and later incinerate existing liquids in the basin, dry the remaining sludges by mixing them with underlying contaminated soils, and excavate and consolidate the soil/sludge mixture into a wastepile. However, the mixing of the soil released odors, and they were difficult to control since such a large surface area (93 acres) had been exposed to the air. Residents complained about the odors and related health concerns, so the Arsenal placed an interim soil cover over the basin to eliminate the odors while final remedy plans were evaluated, developed and scheduled. The lessons learned from that project have been incorporated into the final cleanup work scheduled for 2006.

How is this plan different from the work that was done in the 1980s?

In designing the upcoming Wastepile cleanup, the Arsenal incorporated lessons from the interim response action of 1988-1989 as well as successful, proven techniques from other on-site cleanup projects. The primary improvements include:

- Excavating a significantly smaller area at any given time (less than 1 acre);
- Initially working at a slower pace to limit the amount of material being handled at a time;
- Working only during favorable weather conditions;
- Adding multiple preventive odor and emission controls; and
- Adopting more stringent air quality and odor criteria.

During the interim response actions of the 1980s, crews exposed all 93 acres of Basin F while constructing the Wastepile. In contrast, the upcoming excavation will expose less than 1 percent of the area at a time, which will significantly reduce odors. The smaller work area also allows additional odor-suppressing measures to be implemented quickly, if needed.

How will you monitor whether the plan is working?

The remedy will begin at a “slow start” pace, with extra air sampling to ensure that odors and emissions are being controlled at the project site during the workday, throughout the night, and on weekends when the site is shut down and the area is covered. Air sampling stations are located near the project site, around the Arsenal and in the community. Human monitors have also been trained to identify low odor levels so those can be controlled before they become a nuisance to surrounding communities. Federal, state and local regulatory agencies will have staff on-site as well to monitor the work and review data. The project will move into full operation once the controls have proven effective, and air and odor monitoring will continue for the duration of the project.

When will the project start, and how long will it take?

The “slow start” portion of the project will begin in April 2006 and last six to eight weeks. During this phase, the excavation will be at a slow pace to confirm the effectiveness of the odor control measures under actual operating conditions. Air-quality experts will conduct intensive air sampling and share those results with the regulatory agencies. Based on the findings, adjustments will be made to the odor controls as needed. Once experts are confident the controls will work on a larger scale, the project will progress to regular operations. The Arsenal will continue to work with the regulatory agencies to monitor air quality and odors throughout the project. The Basin F Wastepile remedy is scheduled to be completed by October 2007.

How much will this project cost, and who is paying for it?

The Basin F Wastepile excavation will cost approximately \$30 million. The price of constructing the new triple-lined landfill and protective cover will be approximately \$43 million. The Army and Shell Oil Co. will pay for the project.

Safety Controls

How will you control odors during the soil excavation and placement into the triple-lined landfill? Are you sure the controls will work?

A variety of proven odor and emission controls will be used during the excavation and placement of soil into the landfill. These controls were used in a small-scale test with actual material from the Wastepile and proved to be effective. Also, the Arsenal has used several of these methods on other odorous cleanup projects, and the controls have worked very well.

Preventive controls used at the Wastepile will include:

- Reducing the excavation area to 1 percent (less than one acre) of what was originally excavated in 1988 (93 acres);
- Spraying foam onto soil as it is being excavated or as a quick response to rapidly changing weather conditions;
- Applying soil and plastic sheeting to excavated areas; and
- Delaying, modifying or suspending operations if needed during unfavorable weather conditions.

Preventive odor and emission controls used at the triple-lined landfill will include:

- Covering inactive areas with plastic sheeting and clean soil;
- Spraying foam onto soil if weather conditions are changing rapidly; and
- Placing clean soil on top of plastic sheeting over the project site at the end of each workday.

Do you anticipate Wastepile odors in the community?

The Arsenal is committed to keeping odors to an absolute minimum. The Arsenal's odor-control plan will manage odors at the project site and fence line to reduce the possibility of nuisance odors affecting the community. Also, excavation of the Wastepile will only occur during appropriate weather conditions to reduce the chance of odors. To better predict weather conditions, the Arsenal will rely on data from its 140-foot meteorological tower located adjacent to the Wastepile. Although the Arsenal cannot guarantee an absolute, complete absence of odors, the Arsenal is confident that its prevention and monitoring measures will keep sustained nuisance odors from affecting the community.

How will the Arsenal know if odors are drifting beyond the project site into the community?

In cooperation with the regulatory agencies, the Arsenal has set an odor-monitoring boundary around Basin F and the triple-lined landfill. The boundary is less than half a mile from the Wastepile and one or more miles from the community (depending upon location). Odor monitoring will take place at the boundary and Arsenal fence line around the clock. If needed, the Arsenal will make immediate adjustments to its odor controls or temporarily shut down operations to suppress odors. Since odors will be monitored so close to the project site, they should be contained before they become a nuisance to the community.

If odors become noticeable to the community, what will you do?

The Arsenal's goal is to control odors at the project site and at the triple-lined landfill to keep nuisance odors from developing. Preventive methods, such as a clean soil cover, plastic liner and/or foam spray, will be used to control odors, and odor monitoring will occur near the project area and fence line to ensure the controls are working. The odor monitors can detect very low-level scents and will give workers advance notice if preventive measures need to be implemented. However, if it appears that odors will strongly affect nearby residents, the Arsenal will quickly modify or temporarily shut down operations while adjustments are made.

If you smell odors, please call Tri-County Health Department's Odor Response Line at 303-286-8032. Tri-County staff will investigate your concern and provide you with follow-up information.

Is it safe for people to visit the Arsenal during Wastepile operations?

During the initial phase, the Rocky Mountain Arsenal National Wildlife Refuge will be closed to the public in April and May 2006 while project controls are tested. Once the controls have performed satisfactorily, the project will move into full-scale (regular) operations, and the site will be reopened for visitation. Input from the regulatory agencies will determine when full-scale operations will commence.

Community Alerts/Hotline Information

Whom should I call if I smell odors? How quickly will I receive a response to my concern?

If you suspect an Arsenal-related odor, please call Tri-County Health Department's Odor Response Line at 303-286-8032. A recorded message will provide general information and ask the caller to leave detailed information about the odor concern/complaint. A page will then be sent to a Tri-County Health Department representative, who will investigate the concern/complaint. A representative may also contact the caller for further information if necessary. Once the investigation is complete, Tri-County will contact the caller, if contact information was given, to provide investigation results. Residents can also use the odor hotline to make anonymous reports. Tri-County has set a goal of responding to calls within an hour.

Whom should I call if I have a health question related to the Rocky Mountain Arsenal?

If you have an Arsenal-related health question, you can call the **toll-free, 24-hour RMA Health Line at 1-888-671-7848** to speak to a nurse. The health line is operated by the Rocky Mountain Poison and Drug Center in collaboration with the Colorado Department of Public Health & Environment.

